

REMARKS

Claims 27-41 are pending in this application. Claims 25 and 26 are cancelled herein without disclaimer or prejudice to pursuing the invention of claims 25 and 26 in continuing or divisional applications.

Claim 38 is amended herein such that it no longer depends from rejected claim 25 but instead now depends from claim 27. No new matter is added by this amendment and support for the amendment may be found throughout the specification including, for example, at paragraphs 309-448.

Claim Rejections

Rejection under 35 U.S.C. § 101:

The final Office action mailed January 24, 2007 rejected claims 25-41 under 35 U.S.C. § 101 for alleged lack of utility because "T cell proliferation must be measured in order to conduct the MLR assay, and contrary to applicant's arguments, explicit data values are needed to conduct the assay and drawn (*sic*) conclusions regarding the effect of a particular molecule on T cell proliferation." Page 3 of the Office action mailed Jan. 24, 2007.

Applicants respectfully disagree. First, no case, rule, or statute requires explicit data values to support an applicant's assertion of utility. Rather, "[p]roof of utility is sufficient if it is convincing to one of ordinary skill in the art." *In re Jolles*, 628 F.2d 1322 (CCPA 1980) citing *In re Irons*, 340 F.2d 974 (CCPA 1965). Indeed, "[t]he amount of evidence required depends on the facts of each individual case . . . the character and amount of evidence needed may vary, depending on whether the alleged utility appears to accord with or contravene established scientific principles." *In re Jolles*, 628 F.2d 1322 (CCPA 1980) (citations omitted). That is - more definite and stronger evidence of utility is required when an asserted utility appears to contravene established scientific principles. In contrast, less evidence is required when an asserted utility accords with established

scientific principles. Put another way, an applicant's assertion of utility in a patent specification "must be taken as sufficient to satisfy the utility requirement of § 101 for the entire claimed subject matter unless there is a reason for one skill in the art to question the objective truth of the statement of utility or its scope." *In re Langer*, 503 F.2d 1380, 1391 (CCPA 1965) (emphasis original). Thus, Office personnel are directed to presume that a statement of utility by an applicant is true. To overcome the presumption of truth that an assertion of utility by an applicant enjoys, Office personnel must establish that it is more likely than not that one of ordinary skill in the art would doubt (*i.e.* "question") the truth of the statement of utility. According to § 2107.02 of the MPEP, "[t]o do this, Office personnel must provide evidence sufficient to show that the statement of asserted utility would be considered 'false' by a person of ordinary skill in the art."

In the present case there is no evidence that the asserted utility of PRO361, based on its activity in the MLR assay, would be considered 'false' by a person of ordinary skill in the art. Indeed, the Office has issued claims relying on the MLR assay to establish utility in at least U.S. Patent No. 7,220,835 and U.S. Patent Application Serial No. 10/213,181 (notice of allowance mailed 1/10/07). Both U.S. Patent No. 7,220,835 and U.S. Patent Application Serial No. 10/213,181 are assigned to Genentech, Inc., as is the present application, both share common inventors, and the specifications are similar. Although Applicants are aware that the examination of each application is done on the merits, Applicants respectfully submit that issuance of U.S. Patent No. 7,220,835 and allowance of U.S. Patent Application Serial No. 10/213,181 are persuasive evidence that one of ordinary skill in the art would not consider the utility asserted herein by Applicants to be false.

Moreover, in the present case, the Office has acknowledged that "the MLR assay is art recognized for identifying molecules which suppress an immune response." Therefore, clearly Applicants' assertion of utility, which is based on the activity of PRO361 observed in the MLR assay, does not contravene any scientific principles but rather accords with them. Thus, Applicants assertion of utility should be accepted.

Indeed, "any reasonable use that an applicant has identified for the invention that can be viewed as providing a public benefit should be accepted as sufficient." MPEP § 2107.01. The Guidelines for Examination of Applications for Compliance with the Utility Requirement, set forth in MPEP § 2107 II (B) (1) gives the following instruction to patent examiners: "If the applicant has asserted that the claimed invention is useful for any particular practical purpose . . . and the assertion would be considered credible by a person of ordinary skill in the art, do not impose a rejection based on lack of utility." The Utility Guidelines restate the Patent Office's long established position that any asserted utility has to be "credible." "Credibility is assessed from the perspective of one of ordinary skill in the art in view of the disclosure and any other evidence of record . . . that is probative of the applicant's assertions." MPEP § 2107 II (B) (I) (ii). Such a standard is presumptively satisfied unless the logic underlying the assertion is seriously flawed, or if the facts upon which the assertion is based are inconsistent with the logic underlying the assertion. (Revised Interim Utility Guidelines Training Materials, 1999).

According to these standards, Applicants have clearly satisfied the utility requirement. First, as stated above, the Office has recognized that the MLR assay is art-recognized and accepted for identifying molecules that suppress an immune response. Second, in addition to explaining how to conduct the MLR assay, Example 34 of the present specification, through reference to the *Current Protocols in Immunology*, also explains how to calculate the results obtained from the MLR assay. One of ordinary skill in the art could easily carry out the MLR assay as described in the specification and *Current Protocols*, and calculate the results as taught by the specification and *Current Protocols*. Applicants have provided sufficient detail in the specification, either explicitly or through incorporation by reference, about the MLR assay, how the assay is performed, what controls are used and how they are used, and how the data is calculated. Third, Applicants assertion of utility based activity observed in the MLR assay clearly is neither seriously flawed, nor are the facts upon which the assertion is based inconsistent with the logic underlying the assertion. Specifically, at page 141 of the specification, Applicants assert that PRO361 exhibited a significant inhibitory effect in the MLR assay. That assertion is based upon the fact that PRO361 "tested positive" in the MLR assay.

According to the specification the standard for identifying immunosuppressive molecules using the MLR assay is as follows: “[a]ny decreases below control is considered to be a positive result for an inhibitory compound, with decreases of less than or equal to 80% being preferred. However, any value less than control indicates an inhibitory effect for the test protein.”

This standard is art recognized. For example, the Declaration of Sherman Fong, Ph.D., previously submitted by Applicants with the Amendment and Response mailed September 2, 2005, provides evidence that one of at least ordinary skill in the art accepts this standard. Specifically, as illustrated by his *Curriculum Vitae* attached to his Declaration, Dr. Fong is someone of at least ordinary skill in the art. In his opinion, Dr. Fong attests that “[i]t is my considered scientific opinion that a PRO polypeptide shown to inhibit T-cell proliferation in the MLR assay where the activity is observed as 80% or less of the control, as specified in the present application, would be expected to find practical utility when an inhibition of the immune response is desired, such as in autoimmune diseases.” Clearly then, Dr. Fong does not find that the utility of PRO361 alleged at page 141 of the specification contravenes any established scientific principles, but rather attests that the alleged utility accords with them.

Indeed, Dr. Fong is identified as an inventor on both U.S. Patent No. 7,220,835 and allowed U.S. Patent Application No. 10/213,181. Each of these patent documents set forth the same standard for assessing immunosuppressive ability of a test protein as is set forth in the present application. Specifically, at column 383, lines 18-22, the specification of U.S. Patent No. 7,220,835 reads:

Any decreases below control is considered to be a positive result for an inhibitor compound, with decreases of less than or equal to 80% being preferred.
However, **any value less than control indicates an inhibitory effect** for the test protein. (Emphasis added).

And at paragraph 388, the specification of U.S. Patent Application Serial No. 10/213,181 reads:

Any decreases below control is considered to be a positive result for an inhibitor compound, with decreases of less than or equal to 80% being preferred.

However, **any value less than control indicates an inhibitory effect** for the test protein. (Emphasis added).

Thus, this evidence further supports Applicants' assertion that decreases below control indicate an inhibitory effect for the test protein. See also US Patent No. 5,958,403 at col. 6, ll 16-19, which states that "[u]seful constructs are also those which provide a mixed lymphocyte reaction (MLR) by decreasing proliferation by 20%, more preferably 40%, and most preferably by 60% relative to control cells." These references provide clear evidence that it is improper to require an explicit demonstration that a test compound exhibits at least an 80% decrease compared to control, a level that is explicitly characterized as being **preferred not necessary** in the present specification. This evidence also provides further support for Applicants assertion that one of ordinary skill in the art would not doubt Applicants assertion of utility based on PRO361 testing positive in the MLR assay.

The specification clearly states that PRO361 tested positive in the MLR assay. Therefore, although no explicit data is provided, in light of the significant details provided about the MLR assay, how it was performed, what controls were used, how they were used, how the positive result was determined, the art recognition of the MLR assay as a means of identifying immunosuppressive compounds, and the testimony of Sherman Fong presented in the Fong Declaration, one of ordinary skill in the art can conclude that PRO361 exhibited a level of inhibition greater than any inhibition seen with the controls and can conclude that PRO361 has immunosuppressant characteristics.

Indeed, in view of these significant teachings and the high level of skill and understanding in the art, the lack of explicit data does not make it more likely than not that one of ordinary skill in the art would doubt Applicants' assertion of utility for the PRO361 polypeptide. This is sufficient to satisfy the utility requirement. As stated in *Nelson v. Bowler*, 626 F.2d 853, 206 USPQ (BNA) 881 (C.C.P.A. 1980), tests evidencing pharmacological activity

of a compound establish practical utility, even though they may not establish a specific therapeutic use. Moreover, while Applicants have provided the Fong Declaration, which clearly states that one of at least ordinary skill in the art does not find the asserted utility to violate or contravene any established scientific principles, and have cited US Patent Nos. 5,958,403, 7,220,385, and allowed US Patent Application Serial No. 10/213,181 as evidence that the standard set forth in the present application is art-recognized and accepted, the Office has not provided any evidence showing that the asserted utility would be considered "false" by a person of skill in the art. Therefore, Applicants have provided sufficient proof of utility for claims 27-41 and respectfully request that this ground of rejection be withdrawn.

Rejection under 35 U.S.C. § 112, first paragraph:

Enablement

The Office action contends that because the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility, one skilled in the art would not know how to use the claimed invention.

Applicants respectfully disagree. As discussed above, the claimed polypeptide has the specific, substantial, and credible utility of encoding a polypeptide which inhibits the proliferation of stimulated T-lymphocytes as demonstrated in the MLR assay experiment discussed in Example 34 at page 141 of the application. Applicants respectfully request the Examiner reconsider and withdraw the rejection of the claims under 35 U.S.C. § 112 ¶1 for alleged inadequate disclosure on how to use the claimed invention.

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Resp. to final Office action mailed 1/24/07
Request for Continued Examiner mailed 6/19/07

CONCLUSION

Applicants believe this Request for Continued Examination fully responds to the final Office action mailed January 24, 2007. Applicants respectfully request the Examiner grant allowance of pending claims 27-41. The Examiner is invited to contact the undersigned attorney for the Applicant via telephone if such communication would expedite allowance of this application.

Respectfully submitted,



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